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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/804,523	03/12/2001	Michael T. Moore	0325.00361	9089
21363	7590	02/18/2004	EXAMINER	
CHRISTOPHER P. MAIORANA, P.C. 24025 GREATER MACK SUITE 200 ST. CLAIR SHORES, MI 48080			TRAN, ANH Q	
			ART UNIT	PAPER NUMBER
			2819	

DATE MAILED: 02/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/804,523

Applicant(s)

MOORE, MICHAEL T.

Examiner

Anh Q. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims are rejected under 35 U.S.C. 102(e) as being anticipated by Lien et al (6,211,697).

Claim 1, Lien shows an apparatus comprising:

One or more logic circuits configured to provide logical operation (208, Fig. 9B), wherein the one or more logic circuits comprise (i) programmable logic elements (220, 218, 222) and (ii) non-programmable hard wired clocks (210-216) having no programmable elements with a programmable logic device (col. 4, lines 60-62, col. 5, lines 1-2), wherein the programmable logic elements are (i) configurable between two or more different logical functions and (ii) connectable by a routable interconnect circuit (290, Fig. 14B).

Claim 2, Lien shows the one or more logic circuits comprise variable width logic circuits (inherent element, all circuit have variable width).

Claim 3, Lien shows a width of each of the one or more logic circuits is determined in response to one or more input signal (INPUT 1-D, Fig. 5).

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Claim 4, Lien shows each of the one or more logic circuits is configured to receive a first one or more inputs, wherein the one or more inputs comprise multi-bit or single-bit signals in a serial or a parallel configuration (Fig. 13).

Claim 6, Lien shows one or more of the non-programmable hard wired blocks (JTAG, Col. 12, lines 50-67) are configured to perform a cyclic redundancy check functions.

Claim 7, Lien shows wherein one or more of the logic circuits is configured to present an output (inherent limitations).

Claim 8, Lien shows each of the one or more outputs comprise intermediate signals (signal at the interface between FPGA and HA).

Claim 10, Lien shows the routable interconnect circuit is configured to route signals to/from one or more of the non-programmable hard wired blocks (Fig. 12).

Claim 11, Lien shows a number of registers configured to increase a throughput of the one or more logic circuits (Fig. 13).

Claim 15 is rejected as above claim 1.

The apparatus described above is applicable to the method claims 16-17, 20-22.

Claim 23, Lien shows one or more first registers (268) configured to couple one or more input signals to the non-programmable hard wired blocks; and

One or more second registers (274) configured to receive one or more output signals from the non-programmable hard wired blocks.

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Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5, 9, 12-13, 18-19 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lien et al (6,211,697) in view of Kaptanoglu (5,448,185).

Lien discloses the claimed invention except for a multiplier comprises adder, multiplexers, input registers, and output registers. Kaptanoglu shows a hard-wired block comprises adder, multiplexers, input registers, and output registers for implement specific function. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the multiplier comprises adder, multiplexers, input registers, and output registers of Kaptanoglu, since Lien teaches that HA block can be any other application specific functions (col. 5, lines 21-22).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh Q. Tran whose telephone number is 571-272-1813. The examiner can normally be reached on M-TH (7:00-5:30) Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Tokar can be reached on 703-305-3493. The

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fax phone number for the organization where this application or proceeding is assigned is 703-308-7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Anh Tran
1/21/04

A handwritten signature in black ink, appearing to be 'Anh Tran', written in a cursive style.